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SANITARY TRACT, No. 3.

ON THE

EVILS OF THE PRESENT PRIVY SYSTEM.

ISSUED BY THE

Sanitary Association of Lynn.

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MUSEUM
OF HYGIENE

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In a Christain community we always observe more or less of efforts to save life. Witness in our own the life-saving coast service to afford aid to ship-wrecked crews; witness the life boats of the Massachusetts Humane Society along our coast; witness the laws providing for ready escape from burning buildings, and the cloths intended to catch any who may be compelled to jump from them. These are but a part of what our own community offers.

With all that has been done a wide field remains, so far, at least, as our own city is concerned, almost wholly unexplored. The Sanitary Association enters upon it, hoping to save life, to prevent disease, and the consequent pain and cost. It was once supposed that diseases were a direct infliction from God, designed in some mysterious way to work out good in the end. Reverently acknowledging an overruling Providence in all things, we think that disease comes from natural causes, and that if those causes can be removed disease will be prevented. If one scatters about carelessly shavings and matches, a fire is quite probable. So if one tolerates a known cause of disease he may expect to suffer accordingly.

We do not intend now to say that all disease is, or ever will be, wholly preventable. It suffices for our present purpose to say that some prevalent and dangerous diseases arise from causes that can be prevented. Modern science has proved almost beyond question that a ciass of diseases known as zymotic, or fermentative diseases, are largely produced by filth. So well is this fact established that they are frequently designated as filth diseases. They comprise, among others, typhoid fever, diphtheria, diarrhoea, dysentery, cholera and scarlet fever.

The Sanitary Association believes that these diseases may speedily be reduced in our city, and finally be well nigh wholly eradicated. It is the belief of competent persons in England that the deaths, now amounting to 500,000 annually, could be reduced to three-fourths of this number if existing knowledge were reasonably well applied throughout the land. Not only do these diseases originate in filth, but they have a self-perpetuating power. We need not discuss the various

theories as to how the power operates. It is sufficiently well known that it exists, and that these diseases are readily communicated, either by contact or by the poison being swallowed in food or drink, or taken in with the air we breathe. Nor need we consider the fact that of persons apparently subject to equal exposure, some escape and some are attacked. The exposure may not be equal, and the susceptibility of individuals may be very different.

Many persons declare that they and their houses are absolutely free from filth. The carpets have been well shaken, the whole house cleaned, every cob-web brushed down, and nothing remains to be done. But there is a form of filth which may have escaped their notice, to which we wish especially to direct attention. We refer to that connected with privies.

First of all, we unhesitatingly pronounce the existing privy* system an abominable, disgusting, dangerous nuisance, unfit to be tolerated in a civilized community. Measureably safe in an agricultural district, where the population is scattered, where the collections can be frequently and easily removed and utilized on the land, it becomes, when transferred to cities, towns and villages, an abomination of abominations, a mark of the barbarism that is yet to be cast out from civilization. If cities need paved streets, sidewalks, street lights, fire departments, drains, etc., which a farming country does not, so also do they need some other privy arrangements than such as suffices for the farms.

It matters not at all to say that new arrangements will entail great cost. We have no right to sacrifice the lives of the people to save cost, and it costs more to support disease than to support health. Every good citizen has a money value to the community in his labor, his influence, and his care of his family. If he dies prematurely the community loses. We insist upon it, it is more expensive to let people die than to help them to live. But saving of life rests upon higher grounds than that of cost. We do not need to present them.

The privy system, a relic of barbarism, a disgrace to civilization, prevails everywhere; but in many localities the vile odors too plainly declare its existence, poisoning the air we breathe, fouling the soil from which other contaminating va-

* In 1876 an investigation showed that there were in Lynn over 4,750 privies, and that only one-tenth of these had been cleansed, under the supervision of the city authorities, in any one of the three preceding years.

pors arise to be breathed, or poisoning the wells which furnish water for drinking or cooking. Horrible beyond anything we have spoken of, in our own city the extreme degradation is reached of using abandoned wells * for cess-pools. Thus is the ground water polluted so that while city well water is always open to suspicion, ours is now absolutely dangerous. Yet many highly prize their well water. It is often clear and cold, and these qualities, they think, indicate purity. There is abundant evidence to the contrary. The famous Broad street well in London furnished clear cold water, and was so highly prized that persons at a distance sent for it; but, nevertheless, a drain was leaking into it at the time, and it was shown conclusively to have been the means of spreading cholera.

We have an abundance of other evidence in the same direction. For our own city (Lynn) we find three cases cited in the Report of the State Board of Health for 1877. One on Western Avenue, in which the well was sunk down to the rock, the bottom being in a basin formed by the rock rising on either side. Also the land rose from the top of the well on either side. The privy was near the well, and the soil mainly gravel. This is an extreme case; both surface and privy drained into the well. In 1875, five cases of typhoid occurred in the house, and seven more, with one death, among persons using the water. An analysis of the water was made by Professor Nichols, which proved it to be highly contaminated. Statistics show that since the aqueduct water has been generally used, there has been a marked decrease of typhoid fever, and we know that many of the cases that now occur are found in connection with the use of well water.

Doubtless we may expect this evil to be considered by the Board of Health which Lynn is now wise enough to sustain. But this is their first year, the subject is new to most persons, and neither the Board of Health nor the City Government can go far beyond public sentiment. It is with the people themselves that the first effort must be made. If they are once aroused to the evil that exists, there is little doubt that the remedy will be found and applied.

Happily the world is not without some valuable information on this subject. Other communities have considered it, and we have the result of their investigations.

* The attention of the City Government, and of the Board of Health, is respectfully called to the necessity of immediately stopping this practice by limiting the depth of any excavation used for a privy vault or cess-pool.

The point to be aimed at is nothing less than that all excrement of human beings shall be removed to a safe place as speedily as possible; or, if removal is delayed for a time, it be a comparatively short time, and that, until removed, it shall be rendered harmless by some process, and that the storage of it on the premises, week after week, and month after month, shall be absolutely prohibited.

The speedy removal is already carried out by many who have connection with the city sewers. As it must be years before these can be extended to all the thickly settled parts of the city, some other plan must meanwhile be adopted.

Some who cultivate land comply well with good sanitary rules by frequently removing the contents of the vaults, and utilizing the same on the soil. This is the natural way. Nothing so effectually disposes of this substance as the roots of plants. The wonderful chemistry of nature converts things utterly repulsive into fruits and flowers to supply man's wants, and to delight the eye.

Another class must be cared for by some public system of speedy removal. The Rochdale system seems to be superior to any now known. It takes its name from the town of Rochdale, England, where it was introduced in 1868. It retains the privy and abolishes the vault. Under the seat is placed half of a kerosene barrel, (selected for its strength). This is technically called "the pail," and may be furnished with handles for easy removal. This is removed weekly, and in special cases oftener. At the time of removal a tight cover is fitted on, and a disinfected pail is put in its place. "The process of removal is quite inoffensive," and is systematically performed.

The population of Rochdale in 1871 was 67,000, living in 14,000 houses. In that year this pail system was used by 12,000 persons, living in 2,900 houses. In 1874 the persons using it had increased to 43,500, living in 7,300 houses. Mr. Radcliffe, medical officer of the Privy Council of England, says that this system had been thoroughly approved by all who had had experience of it, and that it had not failed under the most varied circumstances, having proved equally efficacious in the highly rented houses, in the lodging houses where great numbers resided, and in the factory and workshop.

The system also includes the removal of "dry dirt" and ashes. At a proper place out of the town, the contents of the

pails are properly mixed into the dry dirt and ashes, and by the addition of sulphuric acid are made in five weeks into an inodorous manure, containing 80 parts of excrement to 35 of ashes. Under the old privy system in Rochdale the removal cost, for 1,000 persons, \$355 per year. Under the new system it was only \$95; and the resulting manure sold for three-fourths the cost of collecting and preparing it. The cost of each "pail" was \$1.14.

"As to the working of the pail system, the moveableness of the pails is their great recommendation — the facility which the system gives for frequent thorough removal being enormous."

"In this connection, it is impossible not to be struck with the advantage that the pail-system has in relation to diseased excrement. The facility and thoroughness with which any required chemical disinfection can be done, and the way in which the excrement can be wholly got rid of, leaving none of its products behind, nothing soaking into the ground, or hanging about midden-pits (vaults) or sewers, obviously suggest most important powers to prevent the spread of excremental diseases."

A few words may be appropriate here in regard to cess-pools, used mainly by those who have not access to sewers. It is perfectly well known that some of these have been used for two, three or more years without becoming filled. The contents filtrate into the soil. Admitting that the soil has some purifying power, we claim that this power is far less than is generally supposed. The result can only be to poison the soil for a great distance in their vicinity. When it is considered that a well ordinarily draws its supply of water from an area included within a circle whose diameter is fifty times its depth, the lines running from the circle to the bottom of the well, we can see the danger arising from vaults and cess-pools.

The only remedy for the evil arising from cess-pools seems to be to extend the sewers as fast as possible, and to prohibit any new cess-pools from receiving any excrement. Any further connection between water-closets and privies or cess-pools should be prohibited. If it be argued that this interferes with the rights of individuals, we reply that any other course interferes with the rights of the community; and that the only principles upon which a compact community can exist, includes the restraint of individuals for the good of the whole.

The Rochdale system has an evident adaptation to our city. Even if the first cost of the new system be borne by the city treasury, and also the whole cost of removal, it would appear economical, and certainly an immense improvement over the present outrageous practice of storing disgusting filth near our dwellings, leaking in most cases into the soil and poisoning it.

Excellent as the Rochdale system is, it may not supersede water carriage, but it would certainly be worth adopting and continuing where there are no sewers; and possibly for some portion of the population even where sewers are available.

An easy mode of introducing it would be for the City Government to provide the needful facilities as soon as a certain number of families, in any defined locality, would agree to adopt it. Once introduced, it would probably increase as its merits became known; and this gradual introduction in defined localities would prevent the costs of sending carts over a large territory to do a little work.

There is much else that might be said in this connection, but it must be left for another occasion. The Sanitary Association earnestly invites the attention of all good citizens to the subject, as being one on which a correct public sentiment should be created preliminary to any reformation of the present system.